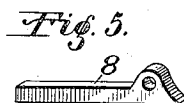
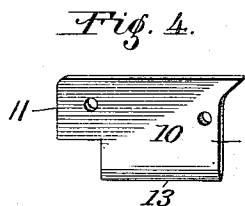
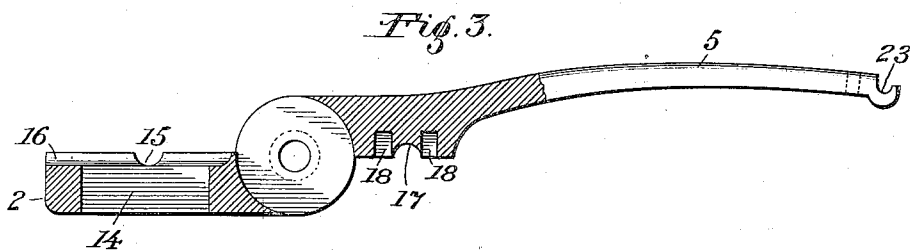
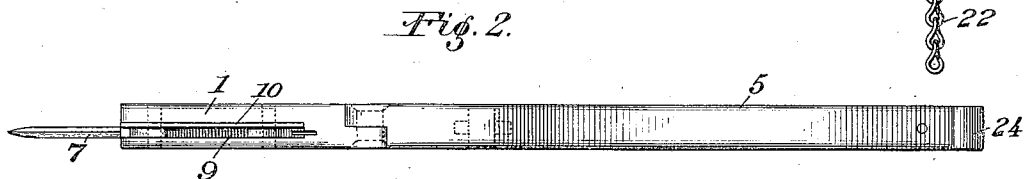
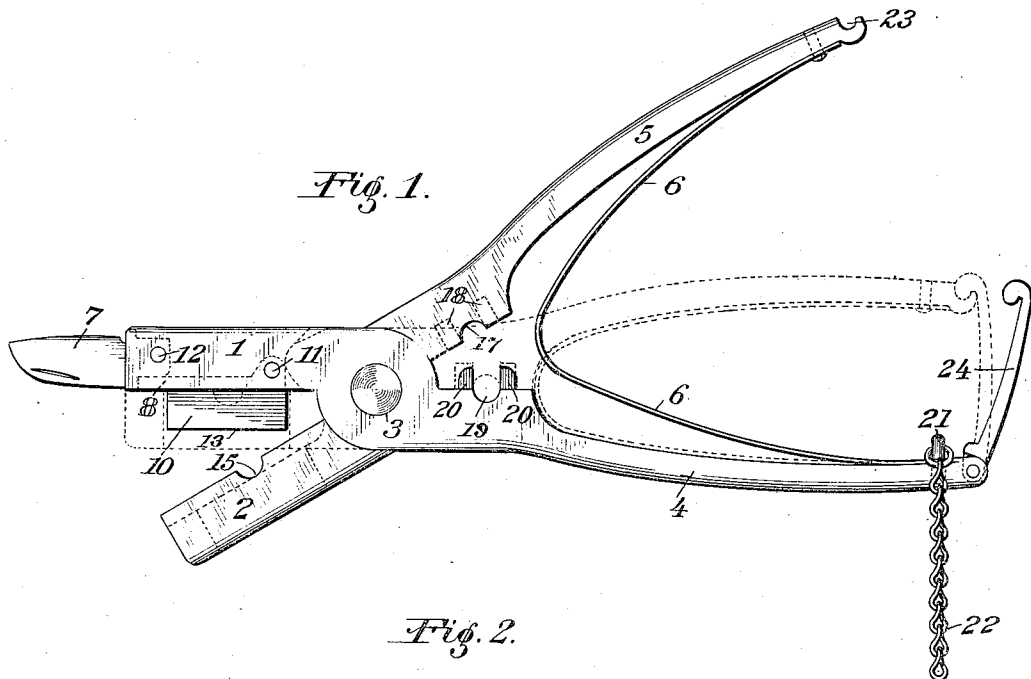


(No Model.)

C. G. BRUNELL.
FUSE CUTTER, SPLITTER, AND CRIMPER.

No. 594,852.

Patented Dec. 7, 1897.



Witnesses
R. E. Rabbitt.
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UNITED STATES PATENT OFFICE.

CHARLES GUST BRUNELL, OF CUSTER, SOUTH DAKOTA.

FUSE CUTTER, SPLITTER, AND CRIMPER.

SPECIFICATION forming part of Letters Patent No. 594,852, dated December 7, 1897.

Application filed August 24, 1897. Serial No. 649,364. (No model.)

To all whom it may concern:

Be it known that I, CHARLES GUST BRUNELL, a citizen of the United States, residing at Custer, in the county of Custer and State of South Dakota, have invented certain new and useful Improvements in Apparatus for Cutting and Splitting Fuses and Crimping Caps, and Powder-Cutters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention is an apparatus for cutting and splitting fuses; and it consists in the novel construction and arrangement of its parts, hereinafter set out in this specification and the claims hereunto attached.

In the accompanying drawings, Figure 1 is a side view of my invention. Fig. 2 is a top edge view. Fig. 3 is a side view of one of the jaws and one of the handles, the same being in one piece, said view being partly in section and partly in perspective. Fig. 4 is a perspective view of the cutting-blade. Fig. 5 is a perspective view of the knife-blade spring.

My invention is in the nature of a pair of pliers, and consists of two jaws 1 and 2, pivoted together at the point 3. Integral with or secured to the upper jaw 1 is a handle 4, and integral with or secured to the lower jaw is a handle 5. Secured to the inner face and extreme end of the handle 4 is one end of a spring 6, which spring extends forward and is then bent back and the other end secured to the extreme end and inner face of the handle 5. This spring is to throw the handles, and consequently the jaws, open. In the bifurcated front end and upper edge of the jaw 1 is pivoted a knife-blade 7, which knife-blade is provided with a spring 8, that the blade may be shut down in the slot 9. In the same slot 9 is secured a blade 10, provided with a cutting edge, the upper part 11 thereof being secured in the same slot 9 by means of rivets 11 and 12. The cutting part 13 of said blade extends into a slot 14 in the lower jaw 2 when the pliers are closed. On the inner face of the lower jaw 2 and running crosswise is a circular notch 15, and running longitudinally with the lower jaw and its en-

tire length is a circular groove 16. In the lower face of the upper handle is a circular notch 17, and on each side of said notch are mortise-holes 18. In the upper face of the lower handle is a circular notch 19, which notch corresponds with notch 17, and on each side of said notch 19 and adapted to enter the mortise-holes 18 are studs 20. In the extreme end of the handle 4 is secured an eye 21, to which is attached a key-chain 22. In the extreme end of the handle 5 is a depression 23, and in the extreme end of handle 4 is pivoted a hook 24, constructed to catch in the depression 23 and hold the pliers closed.

To use this device, open the blade 7 on the upper side of the jaw 1. This blade is for cutting the powder. Close this blade and cut the fuse the desired length by placing the fuse crosswise in the notch 15 and under the stationary blade 10. To split the fuse, place the end of the fuse lengthwise in the groove 16 in the lower jaw 2 and press the handles. For crimping the cap on the fuse, place the end of the fuse in the cap, placing the cap in circular groove 19 just back of the jaws. Press the handles, and the cap is pressed tightly to the fuse.

This invention is for use in the mines where powder, caps, and fuse are used and for all places where rock is blasted.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a bifurcated jaw 1, having the handle 4, provided with circular notch 19 and studs 20; notched, grooved and slotted jaw 2, having the handle 5, pivoted to jaw 1 and provided with circular notch 17, and mortise-holes 18; blade 10, secured in the bifurcated jaw 1, its cutting edge 13, adapted to enter the slot 14, in the jaw 2, substantially as shown and described and for the purposes set forth.

2. The combination of the bifurcated jaw 1, having the handle 4, provided with a circular notch 19 and studs 20; notched, grooved and slotted jaw 2, having the handle 5, pivoted to the jaw 1, and having circular notch 17, and mortise-holes 18; knife-blade 7, pivoted in the bifurcated jaw 1; blade 10, secured in the same bifurcated jaw, 1, its cutting edge 13,

adapted to enter the slot 14, in the jaw 2, substantially as shown and described and for the purposes set forth.

3. The combination of the bifurcated jaw 1, 5 having the handle 4, provided with a circular notch 19 and studs 20; notched, grooved and slotted jaw 2, having the handle 5, pivoted to the jaw 1, and having circular notch 17, and mortise-holes 18; knife-blade 7, pivoted in the 10 bifurcated jaw 1; blade 10, secured in the same bifurcated jaw, 1, its cutting edge 13, adapted to enter the slot 14, in the jaw 2; spring 6, having its extreme ends secured to the extreme ends and inner faces of the han- 15 dles 4, 5, substantially as shown and described and for the purposes set forth.

4. The combination of the bifurcated jaw 1, having the handle 4, provided with a circular notch 19 and studs 20; notched, grooved and 20 slotted jaw 2, having the handle 5, pivoted to the jaw 1, and having circular notch 17, and mortise-holes 18; knife-blade 7, pivoted in the bifurcated jaw 1; blade 10, secured in the same bifurcated jaw, 1, its cutting edge 13, 25 adapted to enter the slot 14, in the jaw 2; spring 6, having its extreme ends secured to

the extreme ends and inner faces of the handles 4, 5; eye 21, adapted to carry a key-chain 22, substantially as shown and described and for the purposes set forth. 30

5. The combination of the bifurcated jaw 1, having the integral handle 4, provided with a circular notch 19 and studs 20; notched, grooved and slotted jaw 2, having the integral handle 5, pivoted to the jaw 1, and hav- 35 ing circular notch 17, and mortise-holes 18; knife-blade 7, pivoted in the bifurcated jaw 1; blade 10, secured in the same bifurcated jaw, 1, its cutting edge 13, adapted to enter the slot 14, in the jaw 2; spring 6, having its 40 extreme ends secured to the extreme ends and inner faces of the handles 4, 5; hook 24, pivoted in the extreme end of handle 4, and adapted to catch in the depression 23, of handle 5, substantially as shown and described 45 and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES GUST BRUNELL.

Witnesses:

EDWARD CAMPBELL,
C. E. SMITH.